Marine Life Protection Act Initiative

Marine Birds and Mammals Evaluation for the MLPA South Coast Study Region

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Presentation to the Blue Ribbon Task Force
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Benefits for Marine Birds and Mammals

Direct Benefits:

1) Decreased disturbance at breeding and resting sites.

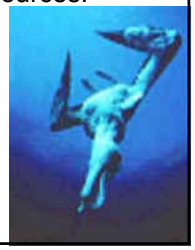
2) Decreased human interactions at foraging sites.

e.g., bycatch, gear entanglement, light attraction.

Indirect Benefits:

1) Reduced competition with humans for food resources.

Prey availability is an important factor regulating annual breeding population and reproductive success.



Methods Overview

5 Analyses to Evaluate Direct and Indirect Benefits

1. Protection of seabird breeding sites *(marine mammal breeding sites will be in Round 2)*
2. Protection of seabird roost and marine mammal haulouts.
3. Protection of nearshore foraging areas.
4. Protection of neritic foraging 'hot spots' *(in Round 2)*
5. Protection of estuarine and coastal habitat

Notes about Round 1 Analyses

- Round 1 analyses only considered State Marine Reserves (SMRs)
- Pending military closures will be reviewed to determine whether they provide marine birds and mammals the same benefits as SMRs.
- Proposed State Marine Conservation Areas (SMCAs) will be reviewed to determine the level of protection they provide to marine birds and mammals.

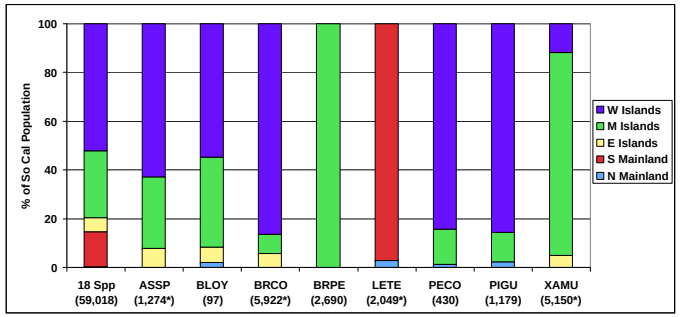
Marine Bird and Mammal Analyses

Analysis 1: Protection at Breeding Sites

Investigated % of bioregion breeding populations protected by SMRs.

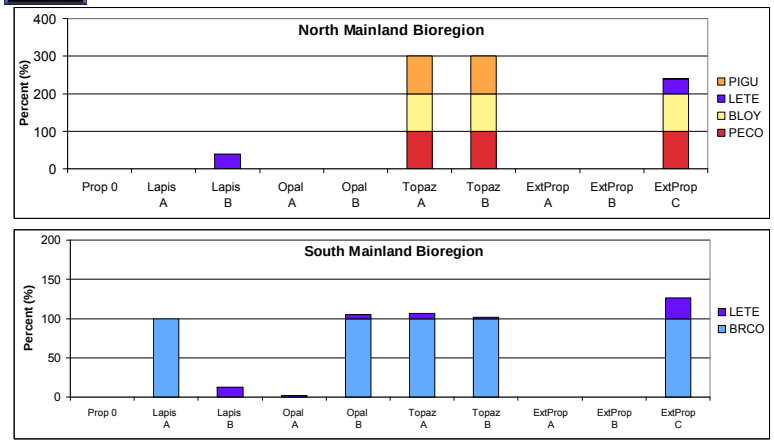
Seabird Breeding Colonies

Distribution of Total Seabird Population and SLTB (values in parentheses indicate population estimates)

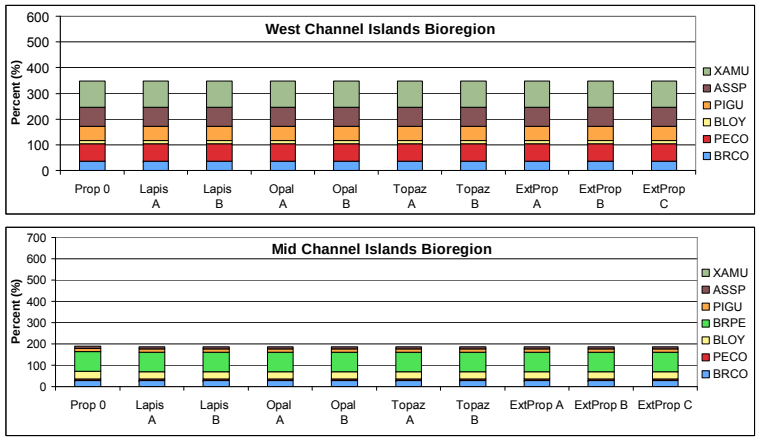


* These population estimates will be updated prior to the Round 2 analysis.

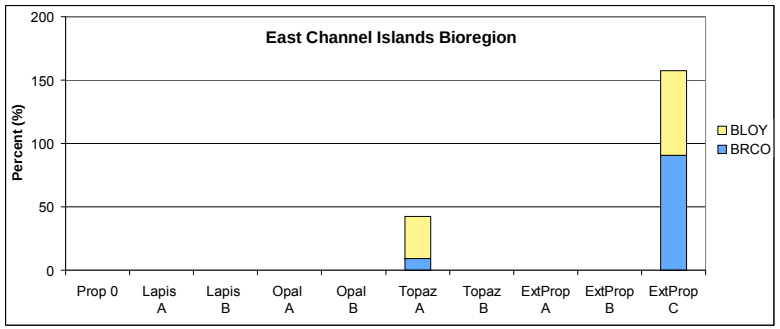
Percent of Bioregion Breeding Population



Percent of Bioregion Breeding Population



Percent of Bioregion Breeding Population



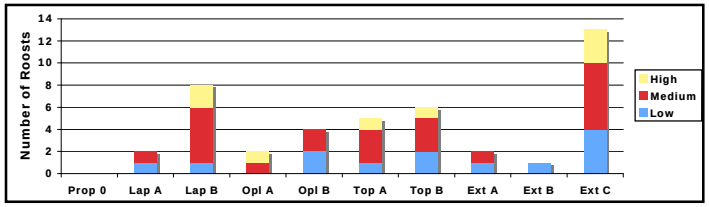
Marine Bird and Mammal Analyses

<u>Analysis 2</u>: Protection at Roosting and Haulout Sites

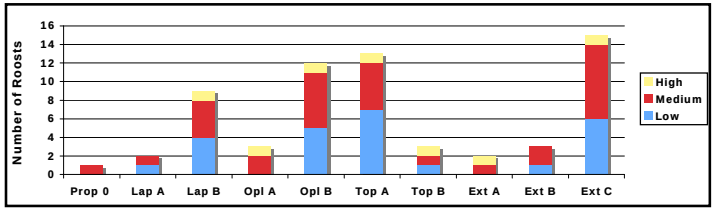
Investigated % of bioregion populations protected by SMRs.

Mainland Brown Pelican Roosts

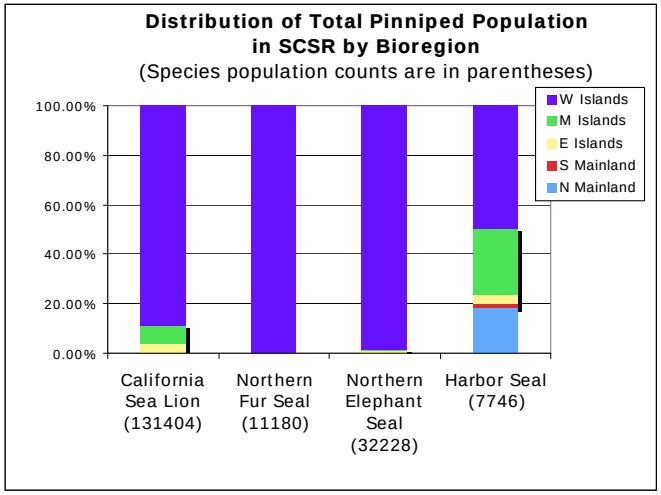
North Mainland



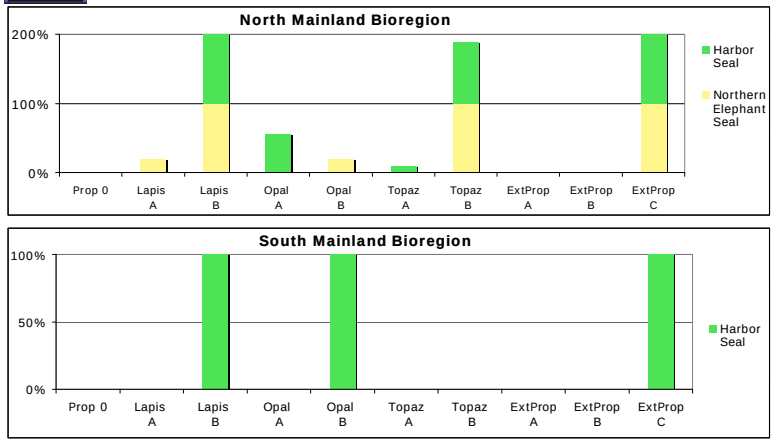
South Mainland



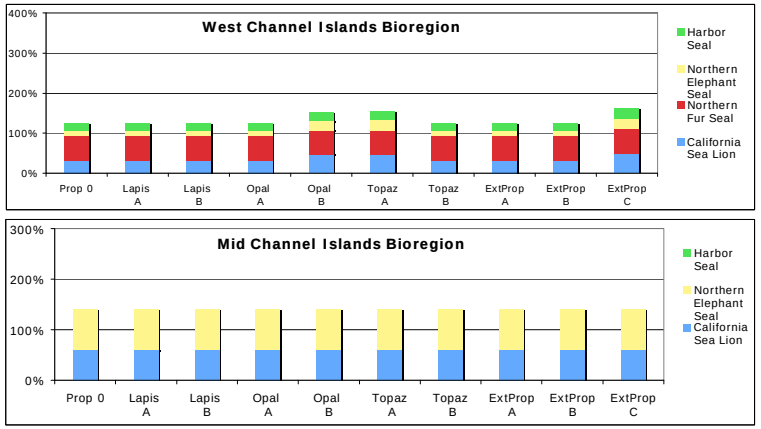
Pinniped Bioregion Haulout Summary



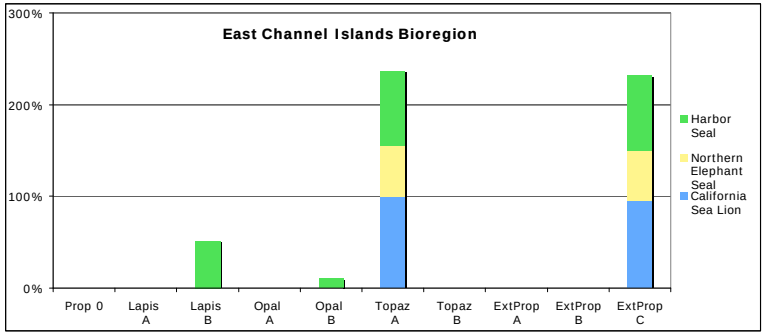
Percent of Bioregion Haulout Population



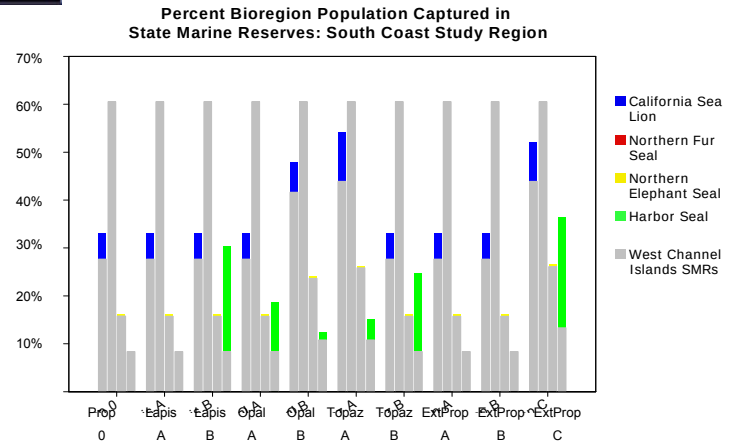
Percent of Bioregion Haulout Population



Percent of Bioregion Haulout Population



South Coast Study Region

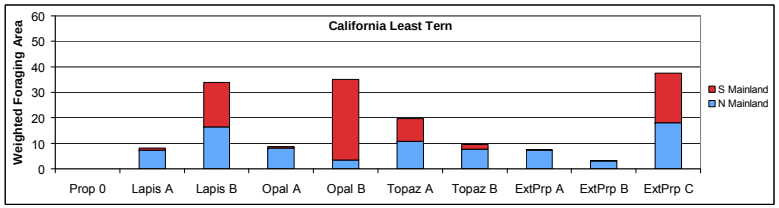


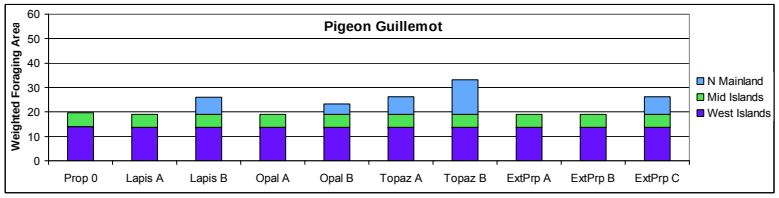
Marine Bird and Mammal Analyses

<u>Analysis 3</u>: Protection at Nearshore Foraging Sites

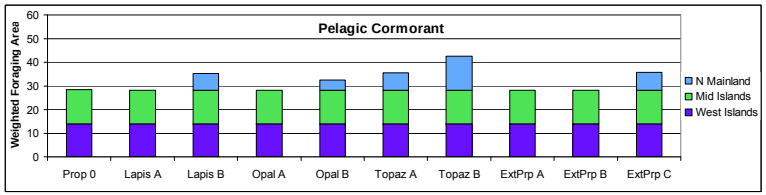
Investigated amount of foraging area protected by SMRs.

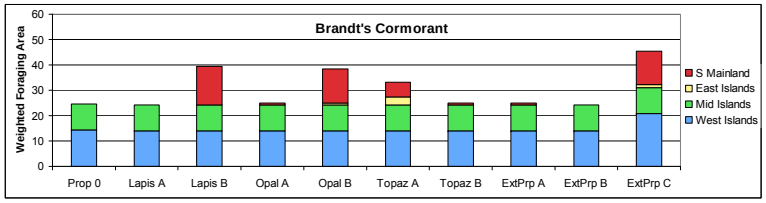
Nearshore Foraging Areas



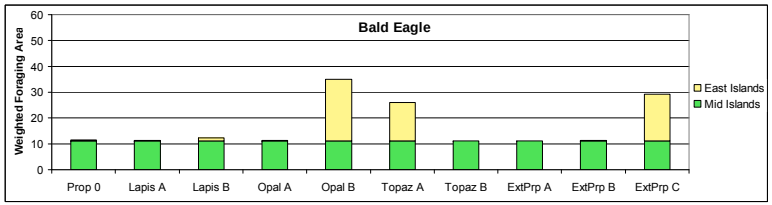


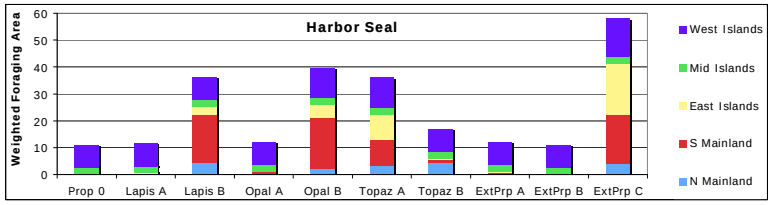
Nearshore Foraging Areas





Nearshore Foraging Areas

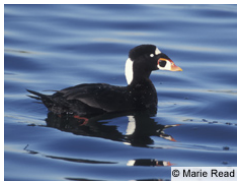




Marine Bird and Mammal Analyses

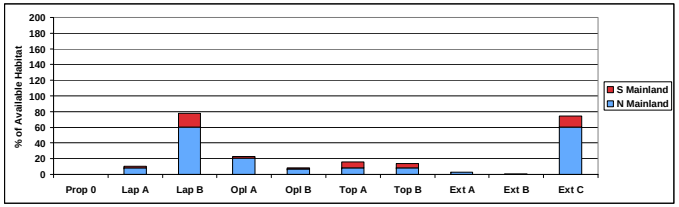
<u>Analysis 4</u>: Protection in Estuarine and Coastal Habitats

Investigated percent of available estuary, tidal flat, coastal marsh, and beach habitat protected by SMRs.

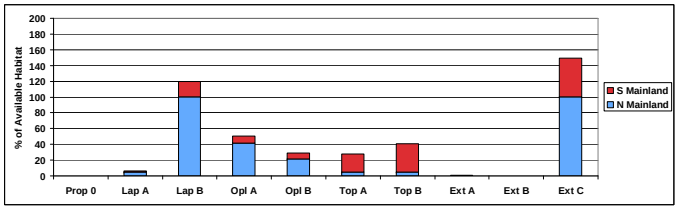


Estuarine and Coastal Habitat

Estuaries

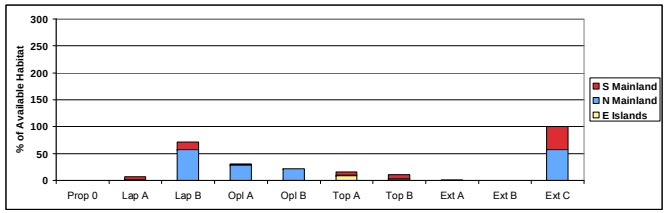


Coastal Marshes

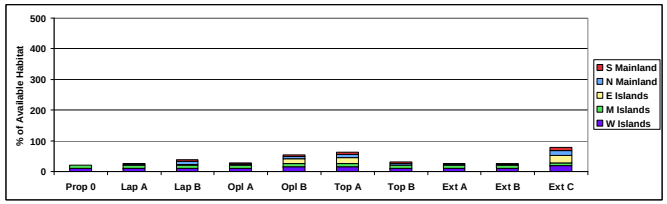


Estuarine and Coastal Habitat

Tidal Flats



Beaches



Summary of Round 1 Analyses

Seabird Breeding Colonies

- External C provides the most protection in all bioregions.
- Lapis B and Topaz A provide more protection within mainland bioregions.
- All other arrays similar to Proposal 0

Seabird Roost and Pinniped Haulout Sites

- External Proposal C, Lapis A, and Topaz B provide greatest protection for north mainland pelican roosts.
- External Proposal C, Opal B, and Topaz A provide greatest protection for south mainland pelican roosts.
- Overall: External C, Opal B and Topaz A provide greatest protection of pinniped haulouts.
- External C, Lapis B and Opal B propose a La Jolla SMR that includes the harbor seal haulout and rookery.
- External C, Lapis B, and Topaz B arrays capture most of the sites used by northern elephant seals and harbor seals along the north mainland coast.
- External C and Topaz A arrays capture most of the sites used by California sea lions, northern elephant seals and harbor seals in the east channel islands bioregion.

Summary of Round 1 Analyses

Near-Colony Foraging Areas

- Brandt's Cormorant and Pelagic Cormorant receive most protection from proposed arrays.
- Most protection occurs within mainland bioregions.
- Lapis B, Opal B, and External C provide greatest protection for Brandt's Cormorant.
- Topaz B provides greatest protection for Pelagic Cormorant.
- External C, Lapis B, Opal B and Topaz A provide greatest protection of harbor seals.

Estuarine and Coastal Habitats

- Estuaries and coastal marshes receive the most protection.
- Lapis B and External C provide the most protection of these habitats.